```
       atgagggcccctgctcagattttttggattcttggtcaggagacgttgt
    1  --------------------------------------------------
       tactcccggggacgagtctaaaaacctaagaaccagtcctctgcaaca
ACTAGTCGACATGAGGGCCCCTGCTCAGTTTTTTGGCTTCTTG-3'
                A          A    C     AA
       MKV4 PRIMER
```

```
       agaaatgagaccgtctattcagttcctggggctcttgttgttctggcttcatgg
   49  --------------------------------------------------
       tctttactctggcagataagtcaaggaccccgagaacaacaagaccgaagtacc
```

    [M .R P S I Q F L G L L L F W L H G

LEADER

```
       tgctcagtgtgacatccagatgacacagtctccatcctcactgtctgcatctct
  103  --------------------------------------------------
       acgagtcacactgtaggtctactgtgtcagaggtaggagtgacagacgtagaga
```

   A Q C][D I Q M T Q S P S S L S A S L

FR1

```
       gggaggcaaagtcaccatcacttgcaagacaagccaagacattaacaagtatat
  157  --------------------------------------------------
       ccctccgtttcagtggtagtgaacgttctgttcggttctgtaattgttcatata
```

   G G K V T I T C][K T S Q D I N K Y M

CDR1

```
       ggcttggtaccaacacaagcctggaaaacgtcctaggctgctcatacattacac
  211  --------------------------------------------------
       ccgaaccatggttgtgttcggacctttttgcaggatccgacgagtatgtaatgtg
```

   A][W Y Q H K P G K R P R L L I H][Y T

FR2

```
       atctgcattacagccaggcatcccatcaaggttcagtggaagtgggtctgggag
  265  --------------------------------------------------
       tagacgtaatgtcggtccgtagggtagttccaagtcaccttcacccagaccctc
```

   S A L Q P][G I P S R F S G S G S G R

CDR2

FIG. 1-1.

```
     agattattccttcaacatcagcaacctggagcctgaagatattgcaacttatta
319  ------------------------------------------------------
     tctaataaggaagttgtagtcgttggacctcggacttctataacgttgaataat

      D   Y   S   F   N   I   S   N   L   E   P   E   D   I   A   T   Y   Y
          FR3


     ttgtctacagtatgataatctgtggacgttcggtggaggcaccaagctggaaat
373  ------------------------------------------------------
     aacagatgtcatactattagacacctgcaagccacctccgtggttcgaccttta

      C][L   Q   Y   D   N   L   W   T][F   G   G   G   T   K   L   E   I
             CDR3                                 FR4
```

```
     caaacgggctgatgctgcaccaactgtatccatcttcccaccatccacccggga
427  ------------------------------------------------------
     gtttgcccgactacgacgtggttgacataggtagaagggtggtaggtgggccct

      K]
```

```
     tcc
481  ---
     agg
```

FIG. 1-2.

09/155739

3/16

atgaaatgcagctgggtcatgttcttcctgatggcagtggttacaggg
1 ───
tactttacgtcgacccagtacaagaaggactaccgtcaccaatgtccc
ACTAGTCGACATGAAATGCAGCTGGGTCATCTTCTTC-3'
                                    G
MHV1 PRIMER
[M K C S W V M F F L M A V V T G
                    LEADER

gtcaattcagaggttcagctgcagcagtctggggcagagcttgtgaagccaggg
49 ───
cagttaagtctccaagtcgacgtcgtcagaccccgtctcgaacacttcggtccc

V N S][E V Q L Q Q S G A E L V K P G
                                          FR1

gcctcagtcaagttgtcctgcacagcttctggcttcaacattaaagacacctat
103 ──
cggagtcagttcaacaggacgtgtcgaagaccgaagttgtaatttctgtggata

A S V K L S C T A S G F N I K][D T Y
                                          CDR1

atacactgtgtgaagcagaggcctgaacagggcctggagtggattggaaggatt
157 ──
tatgtgacacacttcgtctccggacttgtcccggacctcacctaaccttcctaa

I H][C V K Q R P E Q G L E W I G][R I
                        FR2

gatcctgcgaatggttatactaaatatgacccgaagttccagggcaaggccact
211 ──
ctaggacgcttaccaatatgatttatactgggcttcaaggtcccgttccggtga

D P A N G Y T K Y D P K F Q G][K A T
                CDR2

ataacagctgacacatcctccaacacagcctacctgcagctcagcagcctgaca
265 ──
tattgtcgactgtgtaggaggttgtgtcggatggacgtcgagtcgtcggactgt

I T A D T S S N T A Y L Q L S S L T
                                          FR3

FIG. 2-1.

4/16

```
     tctgaggacactgccgtctatttctgtgctagagagggatattatggtaactac
319  ------------------------------------------------------
     agactcctgtgacggcagataaagacacgatctctccctataataccattgatg

     S  E  D  T  A  V  Y  F  C  A  R][E  G  Y  Y  G  N  Y
                                                     CDR3
```

```
     ggggtctatgctatggactactggggtcaaggaacctcagtcaccgtctcctca
373  ------------------------------------------------------
     ccccagatacgatacctgatgaccccagttccttggagtcagtggcagaggagt

     G  V  Y  A  M  D  Y][W  G  Q  C  T  S  V  T  V  S  S]
```

                MOUSE GAMMA-1 PRIMER
           3'-GTAGACAGATAGGTGACCGGGCCCTAGG-5

```
     gccaaaacgacaccccatctgtctatccactggcccgggatcc
427  -------------------------------------------
     cggttttgctgtgggggtagacagataggtgaccgggccctagg

     S  S]
```

FIG. 2-2.

HindIII <u>KOZAK SEQUENCE</u> II/16

```
    aagcttgccgccaccatgagaccgtctattcagttcctggggctcttgttgttc
1   ------------------------------------------------------
    ttcgaacggcggtggtactctggcagataagtcaaggaccccgagaacaacaag

            [M   R   P   S   I   Q   F   L   G   L   L   L   F
                                                LEADER


    tggcttcatggtgctcagtgtgacatccagatgacacagtctccatcctcactg
55  ------------------------------------------------------
    accgaagtaccacgagtcacactgtaggtctactgtgtcagaggtaggagtgac

    W   L   H   G   A   Q   C][D   I   Q   M   T   Q   S   P   S   S   L
                                                            FR1


    tctgcatctGTAggaGATAGAgtcaccatcacttgcaagacaagccaagacatt
109 ------------------------------------------------------
    agacgtagaCATcctCTATCTcagtggtagtgaacgttctgttcggttctgtaa

    S   A   S   V   G   D   R   V   T   I   T   C][K   T   S   Q   D   I
                                                            CDR1


    aacaagtatatggcttggtaccaaCAGACAcctggaaaaGCTcctaggctgctc
163 ------------------------------------------------------
    ttgttcatataccgaaccatggttGTCTGTggacctttttCGAggatccgacgag

    N   K   Y   M   A][W   Y   Q   Q   T   P   G   K   A   P   R   L   L
                            FR2


    atacattacacatctgcattacagccaggcatcccatcaaggttcagtggaagt
217 ------------------------------------------------------
    tatgtaatgtgtagacgtaatgtcggtccgtagggtagttccaagtcaccttca

    I   H][Y   T   S   A   L   Q   P][G   I   P   S   R   F   S   G   S
                        CDR2


    gggtctgggagagattatACTttcACCatcagcAGCctgCAGcctgaagatatt
271 ------------------------------------------------------
    cccagaccctctctaataTGAaagTGGtagtcgTCGgacGTCggacttctataa

    G   S   F   R   D   Y   T   F   T   I   S   S   L   Q   P   E   D   I
                    FR3
```

FIG. 10-1.

```
      gcaacttattattgtctacagtatgataatctgtggacgttcggtCAAggcacc
325   ------------------------------------------------------
      cgttgaataataacagatgtcatactattagacacctgcaagccaGTTccgtgg

      A   T   Y   Y   C][L   Q   Y   D   N   L   W   T][F   G   Q   G   T
                                              CDR3                        FR4
```

SPLICE DONOR SITE BamHI

```
      aagGTGgaaatcaaacgtgagtggatcc
379   ----------------------------
      ttcCACctttagtttgcactcacctagg

      K   V   E   I   K]
```

HindIII KOZAK SEQUENCE

```
      AAGCTTGCCGCCACCATGGACTGGACCTGGCGCGTGTTTTGCCTGCTCGCCGTG
1     ------------------------------------------------------
      TTCGAACGGCGGTGGTACCTGACCTGGACCGCGCACAAAACGGACGAGCGGCAC

                      [M   D   W   T   W   R   V   F   C   L   L   A   V
                                                              LEADER
```

```
      GCTCCTGGGGCCCACAGCCAGGTGCAACTAGTGCAGTCCGGCGCCGAAGTGAAG
55    ------------------------------------------------------
      CGAGGACCCCGGGTGTCGGTCCACGTTGATCACGTCAGGCCGCGGCTTCACTTC

      A   P   G   A   H   S][Q   V   Q   L   V   Q   S   G   A   E   V   K
```

```
      AAACCCGGTGCTTCCGTGAAAGTCAGCTGTAAAGCTAGCGGTttcaacattaaa
109   ------------------------------------------------------
      TTTGGGCCACGAAGGCACTTTCAGTCGACATTTCGATCGCCAaagttgtaattt

      K   P   G   A   S   V   K   V   S   C   K   A   S   G   F   N   I   K][
              FR1
```

```
      gacacctatatacacTGGGTTAGACAGGCCCCtGGCCAAaGGCTgGAGTGGATg
163   ------------------------------------------------------
      ctgtggatatatgtgACCCAATCTGTCCGGgGaCCGGTTtCCGAcCTCACCTAc

      D   T   Y   I   H][W   V   R   Q   A   P   G   Q   R   L   E   W   M
          CDR1                                          FR2
```

FIG.   11-1.

```
      GGaaggattgatcctgcgaatggttatactaaatatgacccgaagttccagggc
217   -------------------------------------------------------
      CCttcctaactaggacgcttaccaatatgatttatactgggcttcaaggtcccg

      G][R  I  D  P  A  N  G  Y  T  K  Y  D  P  K  F  Q  G][
                                        CDR2
```

```
      cgggtcACCatcACCgcaGACACCTCTgccagcACCGCCTACATGGAACTGTCC
271   -------------------------------------------------------
      gcccagTGGtagTGGcgtCTGTGGAGAcggtcgTGGCGGATGTACCTTGACAGG

      R  V -T  I  T  A  D  T  S  A  S  T  A  Y  M  E  L  S
                 _                                       FR3
```

```
      AGCCTGCGCTCCGAGGACACTGCAGTCTACTACTGCGCCagagagggatattat
325   -------------------------------------------------------
      TCGGACGCGAGGCTCCTGTGACGTCAGATGATGACGCGGtctctccctataata

      S  L  R  S  E  D  T  A  V  Y  Y  C  A  R][E  G  Y  Y
```

```
      ggtaactacggggtctatgctatgGACTAcTGGGGtCAaGGaACCCTTGTCACC
379   -------------------------------------------------------
      ccattgatgccccagatacgatacCTGATgACCCCaGTtCCtTGGGAACAGTGG

      G  N  Y  G  V  Y  A  M  D  Y][W  G  Q  G  T  L  V  T
            CDR3                                       FR4
```

```
      SPLICE DONOR SITE BamHI
      GTCtccTCAGGTGAGTGGATCC
433   ----------------------
      CAGaggAGTCCACTCACCTAGG

      V  S  S]
```

FIG. 11-2.